

26. INDIAN SPECIES OF THE GENUS *NEZARA* AMYOT AND  
SERVILLE (HEMIPTERA: PENTATOMIDAE)

(With nine text-figures)

An account is given of three species of the genus *Nezara* Amyot & Serville. *N. antennata* Scott., *N. viridula* (L.) and *N. indica* sp. n. have been described in detail. A revised key to species of *Nezara* Amyot & Serville is also provided. Material has been deposited in the Zoological Museum, Aligarh Muslim University, Aligarh, India.

**Nezara Amyot & Serville**

*Nezara* Amyot & Serville, 1843, Hem., p. 143  
Type species: (*Nezara smaragdula* Fabricius = *Nezara viridula* (L.) designated by Kirkaldy, 1903, *Entomologist*, 36:231.

The distinguishing characters of this genus have been given in detail by Freeman (1940). One new and two known species are represented here. Freeman's (1940) key to species of *Nezara* Amyot & Serville has been revised in order to accommodate *N. indica* sp. nov.

REVISED KEY TO SPECIES OF *Nezara* AMYOT & SERVILLE, BASED ON MALE & FEMALE

1. Scent gland spout never elongate, but ear-like (Freeman 1940; figs. 8-10) . . . . . 2  
— Scent gland spout elongate (Freeman 1940; figs. 11, 12), reaching middle of anterior edge of metapleuron. . . . . 10
2. Abdominal spine always short and rounded (Freeman 1940; fig. 4), evaporating area of scent gland large (Freeman 1940; fig. 8) . . . . . 3  
— Abdominal spine longer and more pointed (Freeman 1940; figs. 6, 7), evaporating area of scent gland small (Freeman 1940; figs. 9, 10). . . . . 8
3. Pronotum not ridged. . . . . 4  
— Pronotum traversed by strong ridges, lighter in colour than the grooves. . . . . *N. niamensis* Dist.
4. Black spots smaller; antennae with definite

- green bands on some or all segments. . . . . 5  
— Broad Madagascan species; black spots on margin of first abdominal segment much larger than the spiracle; parameres as (Freeman 1940; fig. 24); antennae with segments 2-5 nearly all red. *N. soror* Schout.
5. Smaller narrower species (Freeman 1940; fig. 1); parameres bilobed (Freeman 1940; figs. 22, 23). . . . . 6  
— Large robust species (Freeman 1940; fig. 2); parameres trilobed (Freeman 1940; figs. 25, 26). . . . . 7
6. No black on antennae; prothoracic angles not prominent. . . . . *N. viridula* (L.)  
— Antennae banded with black on segments 3-5; prothoracic angles prominent; Asiatic species . . . . . *N. antennata* Scott.
7. Black abdominal spots present; margin of whole insect narrowly red; parameres as in (Freeman 1940; fig. 25) . . . . . *N. robusta* Dist.  
— Black abdominal spots absent; margin only red in reddish coloured varieties and than broadly so; parameres as in (Freeman 1940; fig. 26). . . . . *N. immaculata* Freeman
8. Abdominal spine longer (Freeman 1940; fig. 7). . . . . 9  
— Abdominal spine shorter (Freeman 1940; fig. 6); parameres somewhat variable, usually as in (Freeman 1940; fig. 27), never as *N. similis* (Freeman 1940; fig. 28). . . . . *N. naspirus* (Dallas)
9. Abdominal spine not extending beyond the hind coxae (Freeman 1940; fig. 7); 4th antennal segment with basal third green, rest reddish rust, 5th segment with basal third yellowish, rest reddish rust; margin of abdomen with black spots; body large, about 10-12 mm in length. . . . . *N. similis* Freeman  
— Abdominal spine very long, extending up to middle coxae (Fig. 9); 4th and 5th antennal segments red; margin of abdomen without black spots; spiracles black; body small, 7 mm in length. . . . . *N. indica* sp. nov.
10. Abdominal spine short as in *N. viridula* (L.)

(Freeman 1940; fig. 4); evaporating area large (Freeman 1940; fig. 11); parameres as (Freeman, 1940; fig. 29); smaller narrower species, shape more as *N. robusta* (Freeman 1940; fig. 2).

— Abdominal spine elongate, reaching middle coxae (Freeman 1940; fig. 5); evaporating area smaller (Freeman 1940; fig. 12); parameres as in (Freeman 1940; fig. 30); large very broad species (Freeman 1940; fig. 3).

.. .. . *N. orbiculata* Dist.

**Nezara antennata** Scott. (Figs. 1-3)

*Nezara antennata* Scott., 1874, *A.M.N.H.* (4) 14: 299

*Nezara antennata* Scott., Distant, 1902, *Fauna Brit. India*, 1:220

*Nezara antennata* Scott. Freeman, 1940. *Trans. R. Ent. Soc. Lond.*, 90:360

**FEMALE:**

**Head:** Greenish, densely punctate; distinctly wider than long in dorsal view, narrowing anteriorly and broadening posteriorly; eyes dark brown rounded and smooth; ocelli red, close to occipital margin; occipital margin convex; rostrum greenish brown, 4-segmented, 6 mm in length and extending up to hind coxae.

**Antennae:** 5-segmented, excluding a small ring segment between third and fourth segments; greenish except apical fourth of third, apical half of fourth and apical two-thirds of the fifth segment which are black; first segment short, twice as long as wide not reaching up to apex of head; segments 2-5 gradually increasing in length distad; segments 2nd and 5th eight times, 3rd and 4th seven times as long as wide.

**Thorax:** Greenish, densely punctate; pronotum well developed, twice as wide as long (7.3:3.5 mm), anterior margin with a pair of triangular brown patches, antero-lateral angles prominent; scutellum well developed, converging posteriorly, slightly longer than wide (4.8:4.5 mm), anterior margin with three white spots; metathoracic scent glands short and

car-like (Fig. 2).

**Fore wings:** Basal two thirds greenish, strongly sclerotised and densely punctate; apical one-third transparent, membranous and impunctate; three times as long as wide (10.2:3.5 mm), outer margin truncated.

**Hind wings:** Membranous, triangular in shape, slightly longer than wide (6.66:6.3 mm); submarginal vein with a triangular expansion at its apex.

**Legs:** Greenish except apices of tibiae which are brown; tarsi 3-jointed, second tarsal segment smaller than first and third tarsal segments separately; claws much sclerotised.

**Abdomen:** Greenish, punctate, distinctly longer than wide (6.3:5 mm), abdominal spine short and blunt not extending beyond the hind coxae (Fig. 3).

Body length: 13.5 mm.

**Material examined:** 5 ♀, INDIA: Uttar Pradesh, Aligarh, University Botanical Garden, on *Trifolium alexandrinum* Linn., 10.viii.1976 (M. Nayyar Azim).

**Nezara viridula** (Linn.) (Figs. 4-6)

*Nezara viridula* (Linn.); Distant, 1902, *Fauna Brit. India*, 1:220

*Nezara viridula* (Linn.); Freeman, 1940, *Trans. R. Ent. Soc. Lond.*, 90:357

**FEMALE:**

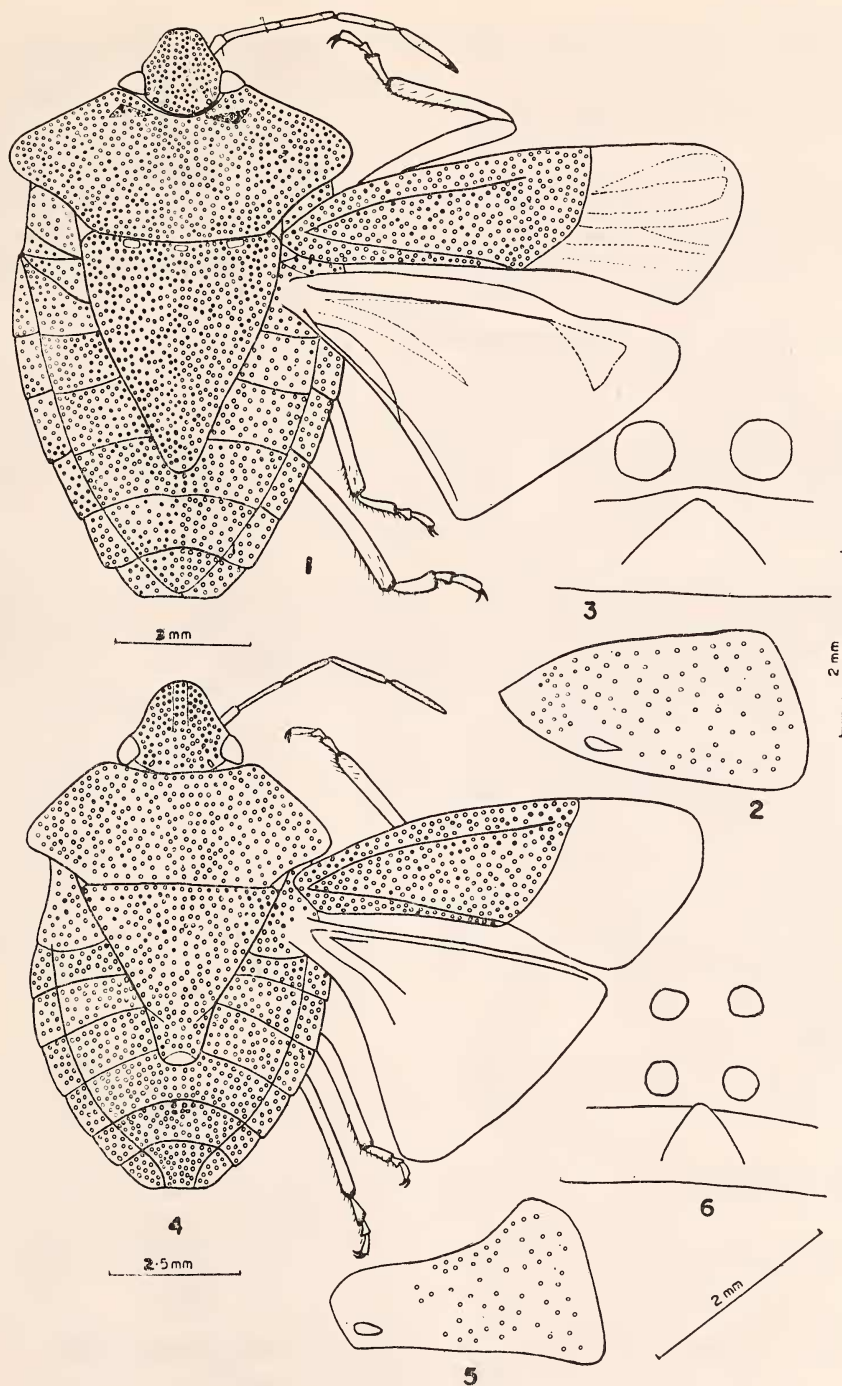
Resembles *Nezara antennata* Scott. except in the following characters:

Antennae greenish except segments 3-5 red; segments 2nd and 5th nine times as long as wide; pronotum and scutellum without patches, apical end of scutellum brown; submarginal vein of hind wing without triangular expansion.

Body length: 10.5 mm.

**Material examined:** 4 ♀, INDIA: Uttar Pradesh, Aligarh, University Botanical Gar-

MISCELLANEOUS NOTES



Figs. 1-3. *Nezara antennata* Scott., ♀ (1) Entire body; (2) Scent gland; (3) Abdominal spine. Figs. 4-6. *Nezara viridula* (Linn.), ♀ (4) Entire body; (5) Scent gland; (6) Abdominal spine.

den, on *Trifolium alexandrinum* Linn., 20.viii.1976. (M. Nayyar Azim).

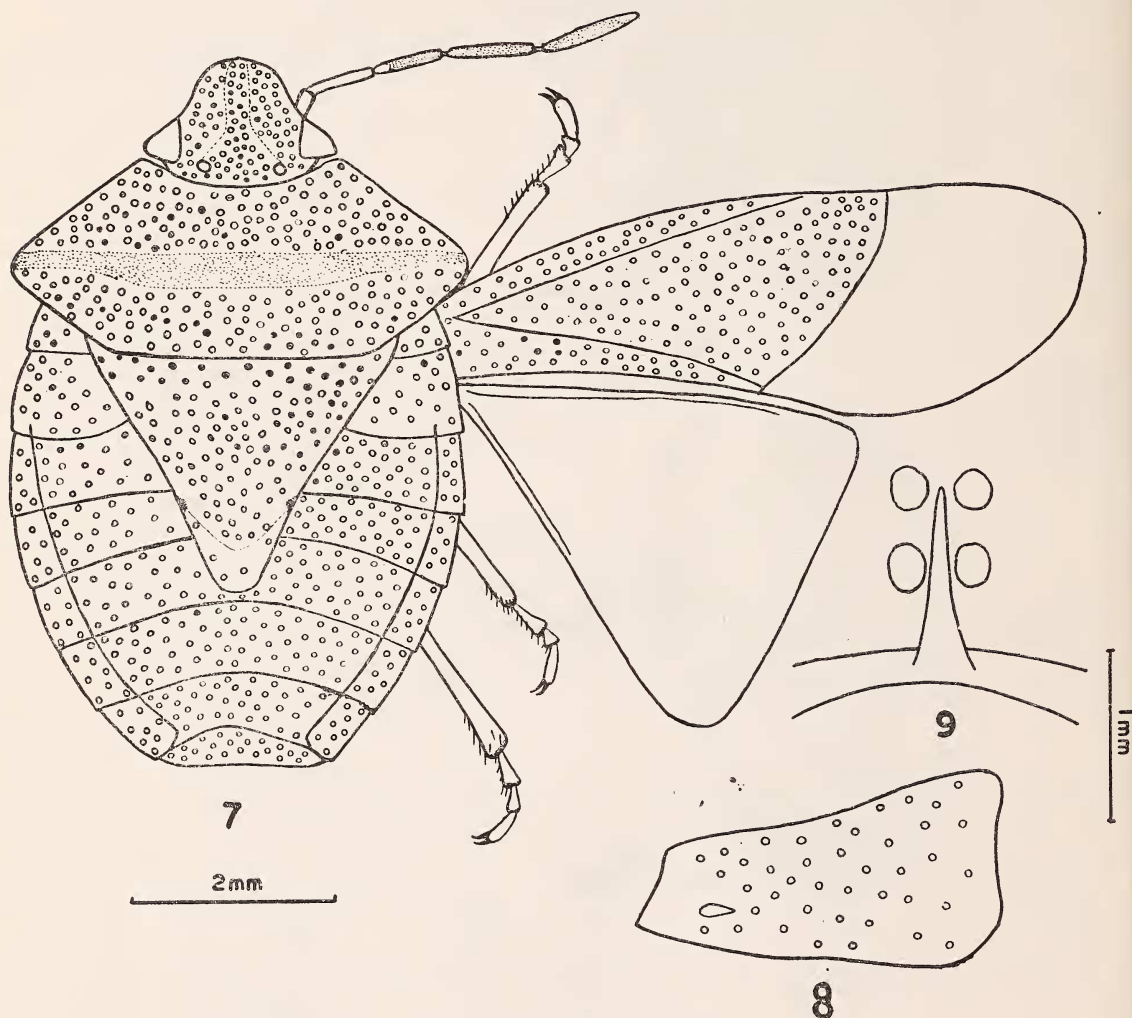
**Nezara indica** sp. nov. (Figs. 7-9)

FEMALE:

*Head*: Greenish, densely punctate, distinctly wider than long in dorsal view, narrowing anteriorly and broadening posteriorly; eyes

red, triangular and smooth; ocelli red placed near to occipital margin; occipital margin convex; rostrum 4-segmented, reaching just beyond the middle coxae.

*Antennae*: 5-segmented, excluding a small ring segment between third and fourth; red except basal two segments which are green; 1st segment short, twice as long as wide,



Figs. 7-9. *Nezara indica* sp. nov., ♀ (7) Entire body; (8) Scent gland; (9) Abdominal spine.



reaching up to apex of head; segments 2nd and 4th six times, 3rd five times, 5th seven times as long as wide.

*Thorax*: Greenish, densely punctate except a transverse band on pronotum which is impunctate; pronotum well developed more than two times as wide as long (4.2:1.7 mm), antero-lateral angles prominent; scutellum well developed, converging posteriorly, slightly wider than long, a pair of dark patches present before the apex one on each side; meta-thoracic scent gland short and ear-like.

*Fore wings*: Basal two thirds greenish, weakly sclerotised and sparsely punctate; apical one-third transparent, membranous and impunctate; three times as long as wide (6.2: 2.2 mm), outer margin truncated.

*Hind wings*: Membranous, triangular in shape, slightly longer than wide (4.0:3.7 mm); submarginal vein without distinct triangular expansion at its apex.

*Legs*: Greenish except apices of tibiae which are brown; tarsi 3-jointed, second tarsal segment smaller than first and third tarsal seg-

ments separately; claws much sclerotised.

*Abdomen*: Greenish, punctate, distinctly longer than wide, lateral margins without black spots; abdominal spine long, extending up to middle coxae (fig. 9).

Body length: 6.9 mm.

*Nezara indica* sp. nov. is more closely related to *N. similis* Freeman, but differs from it in having long abdominal spine which extends up to middle coxae, margin of abdomen without black spots.

*Holotype*: ♀, INDIA: Uttar Pradesh, Aligarh, University Botanical Garden on *Trifolium alexandrinum* Linn., 20.viii.1976. (M. Nayyar Azim). *Paratypes*: 5 ♀ (Same data as for holotype).

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M. NAYYAR AZIM  
S. ADAM SHAFEE

SECTION OF ENTOMOLOGY,  
DEPT. OF ZOOLOGY,  
ALIGARH MUSLIM UNIVERSITY,  
ALIGARH, (U.P.),  
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FREEMAN, P. (1940): A contribution to the study of the genus *Nezara* Amyot & Serville (Hemiptera: Pentatomidae). *Trans. R. Ent. Soc. Lond.*, 90: 351-374.

#### 27. THE BLACK ANT, *CAMPONOTUS* SP., FEEDING ON UREA

I refer to Dr. Mahdihassan's note under this heading (1977, *J. Bombay nat. Hist. Soc.*, 74(1) : 197-199).

Some forty years ago, my doctor in Calcutta told me that he could confidently forecast the

laboratory results of urine sent for sugar determination by observing the behaviour of *Camponotus* ants, of which there were numerous nests in his garden.

He said that the ants never made a mistake